U.S. Department of Commerce
National Institute of Standards and Technology
Gaithersburg, MD 20899

Certificate Number: 91-029A2

National Type Evaluation Program

Certificate of Conformance

for Weighing and Measuring Devices

For:

Vehicle Scale Load Receiving/Weighing Element
Load Cell Electronic
Models: SR-S Series and SR-P Series *
(formerly 35, 40, 50, 60, 70, & 80 Series)
n_{max}: 10 000 e_{min}: 20 lb
Capacity: 135 000 lb to 200 000 lb CLC: 90 000 lb
Platform Sizes: See Below
Accuracy Class: III L

Submitted by:

UHL Scale Service, Inc.
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Standard Features and Options

*Low Profile Pitless or Pit Type: Models SR-XXXYY-S and SR-XXXYY-P where XXX = platform length and YY = platform width. Suffix "S" refers to pitless and suffix "P" refers to pit type.

Platform sizes: 10' x 35' to 14' x 120'; width from 10' to 14'; length from 35' to 120'
Maximum platform area: 1680 sq ft (example: 14' x 120')
Maximum span between sections: 42 feet
Deck material: Concrete

Load cells used: Sensortronics 65058A Series (Certificate of Conformance Number 86-046), Rice Lake Weighing Systems RL75058 Series (Certificate of Conformance Number 96-027) or equivalent.

Indicator Used: Rice Lake Weighing Systems IQ+810-3A (Certificate of Conformance Number 92-013A2) or a compatible indicator with a Certificate of Conformance.

The manufacturer has changed the model designation for the pitless scale with a prefix of SR and an "S" as a suffix to the model number. All pitless scales manufactured after the date on this Certificate carry the "S" suffix. The model designation without the suffix applies to the pitless scales already installed as stated in the original certificate 91-029.

The manufacturer is also offering the same basic scale as a pit-type scale. These models are designated with a prefix of "SR" and a "P" as a suffix to the model number. The I-beams in the pit-type scale are placed under the weighbridge and moved

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: June 6, 1997

Gilbert M. Ugiansky, Ph.D.
Chief, Office of Weights and Measures
Issue Date: June 2, 1998

UHL Scale Service, Inc.
Vehicle Scale Load Receiving/Weighing element
Models: SR-S Series, Low Profile and SR-P Series, Pit Type
(formerly 35, 40, 50, 60, 70, & 80 Series)

Application: General purpose vehicle scale.

Identification: The identifications badge is located on the side of the scale adjacent to the load cell junction box.

Sealing: One or two load cell junction boxes, located near the center of the weighing element, can be secured with wire security seals threaded through the screw heads or with pressure sensitive seals applied to the cover joint on two opposite sides. The indicator can also be sealed.

Test Conditions: This Certificate supersedes Certificate of Conformance Number 91-029A1 and is issued to add the additional models and to increase the CLC to 45 tons, the capacity to 200 000 lb, and the n_{max} to 10 000. A Model SR-8014-S (80' x 14', 200 000 lb capacity) was interfaced with Rice Lake indicator Model IQ+ 810-3A (Certificate of Conformance Number 92-013A2). Initially, the increasing/decreasing load, shift and mid-span tests were conducted with 84 000 lb of known test standards. Strain load tests were completed to 170 900 lb. The scale was sealed and used until the minimum time and load requirements had been met. A permanence test was conducted using 45 000 lb of known standards for sections and mid-span testing, and a strain load of 138 000 lb was applied. The emphasis of the evaluation was on the design, marking, and performance of the weighing/load receiving element. Results of the previous tests are repeated below for reference.

Certificate of Conformance Number 91-029A1: This Certificate was issued to add the Series 35 and to reduce the nominal capacity of the Series 40. This Certificate was based upon the modular design of the scale which permits including a wider range of platform sizes than those listed on the original certificate.

Certificate of Conformance Number 91-029: The Model 7014 (70' x 14', 120 000 lb capacity) scale was tested. The scale was interfaced with a Howe Richardson Model HR-50 indicator for the purpose of this evaluation. The scale was tested initially by placing 15 000 lb of test weights over each load bearing point. Increasing/decreasing load and mid-span tests were performed using 58 000 lb of known test weights. Strain load tests were conducted using 58 000 lb of known test weights to a maximum load of 108 280 lb. The scale was used for over 30 days then tested again. The shift and mid-span tests were again conducted using 58 000 lb of known test weight. Strain load tests were again conducted to a maximum load of 109 000 lb.

Results of the evaluations indicate that the devices comply with the applicable requirements of NIST Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 1997 Edition

Tested By: B. Badenhop (OH), T. Clark (IA), D. Brown (IA), J. Bane (IA) 92-029; L. Wurdeman (NE), R. Suiter (NE) 92-029A2

Information Reviewed By: C. V. Cotsoradis 91-029A1